

**REMARKS**

Review and reconsideration of the non-final Office Action dated August 30, 2004 is respectfully requested in view of the above amendments and the following remarks.

The claims remain un-amended. No new matter has been added to the claims.

Applicants believe that the present set of claims is novel in view that the cited references fail to recognize that the scent of the present invention: **60 % of the fragrance ingredients have a relative fabric affinity value (y) of at least 4.**

These criteria are critical as shown in the experimentation set forth in the specification (see pages 11 - 23 of the specification).

The present inventors have identified a previously **unrecognized parameter (y) that, unlike the teaching of Iliff** (see Figs 1-3 of the present specification), identifies fragrance systems suitable for use in a liquid CO<sub>2</sub> system. Through extensive experimentation and inventiveness, the present inventors have produced a result-effective variable for this purpose where none was previously known. The fabric affinity parameter (y) was previously unrecognized by those of ordinary skill as a result-effective variable (i.e. a variable that achieves a recognized result - the identification of fragrance systems suitable for use in a liquid CO<sub>2</sub> system). Only after a parameter is recognized as a result-effective variable can the determination of its optimum or workable ranges be considered routine experimentation. MPEP 2144.05(II)(B).

**Office Action**

Turning to the Office Action, the paragraphing of the Examiner is adopted.

**Election/Restrictions**

The Examiner withdraws Claims 1-3, 5, and 7-12 from further consideration as being drawn to a non-elected invention.

According to the Examiner's Restriction one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-3, 5, and 7-12, drawn to a process for cleaning soiled garments or fabric materials, classified in class 8, subclass 137.

II. Claims 13, 14 and 16-21 are drawn to a fragrance system, classified in class 510, subclass 101.

In response, Applicants elected Group II with traverse.

Traversal is for the following reasons:

The Examiner's position is that the inventions corresponding to Groups I and II are allegedly distinct on the grounds that the fragrance of Group II could be used in a materially different process, such as in a method of cleaning hard surfaces. Applicants would like to point out to the Examiner that Claim 1 was previously amended to include certain of the limitations of Claims 4 and 6. Claim 13 was previously

amended to include certain of the limitations of Claim 15. As a result of these amendments, Groups I and II have become interconnected. Applicants respectfully assert that, *inter alia*, the recitation that at least 60% of said fragrance ingredients have a relative fabric affinity value ( $y$ ) of at least 4, and the recitation of the mathematical equation for determining  $y$ , means that the claims as amended herein have become more closely intertwined such that they correspond to a single invention.

The claims as amended are thus so closely related that it would not be burdensome on the Examiner to examine all of the claims: a novelty search of Group I should also satisfy the Examiner with respect to Group II without additional effort.

Accordingly, the indulgence of the Examiner to also examine the claims of Group I in this application is respectfully requested.

Furthermore, Applicants note that in the previous Office Action, the Examiner rejoined groups I and II in view of the novelty of the fragrance system. Applicants respectfully request that the Examiner show the same courtesy if the claims to the fragrance system are found novel.

Accordingly, withdrawal of the restriction requirement is respectfully requested.

**Claim Rejections (Anticipation)**

The Examiner rejects Claims 13, 14, and 16-20 under 35

U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Iliff et al. (US 5,412,958).

The position of the Examiner can be found on pages 4-7 of the Office Action.

Applicants respectfully traverse.

For a reference to anticipated, it must disclose all the elements of the claim.

Applicants note that independent Claim 13 requires:

a fragrance system having fragrance ingredients that are determined to be substantive to garments according to the following mathematical equation:

$$y = a_0 + \sum a_n x_n$$

wherein  $y$  is defined as the predicted relative substantivity of an aroma chemical having a range of from about 1-7 with 7 being the most substantive;

wherein  $x_{1-n}$  are defined as molecular descriptors derived out of COSMO RS calculations; wherein  $n$  is defined as number of descriptors used in the said equation,

wherein  $a_{0-n}$  are defined as coefficients derived from linear regression analysis;

wherein at least 60% of said fragrance ingredients have a relative fabric affinity value ( $y$ ) of at least 4.

The Iliff reference does not disclose using a cleaning agent comprising  $\text{CO}_2$ , which cleaning agent further comprises a

fragrance system which comprises fragrance ingredients, wherein at least 60 % of said fragrance ingredients have a relative fabric affinity value (y) of at least 4.

On page 15, lines 8 - 15, of the specification as originally filed there is an indication that a fragrance ingredients fraction of at least 60 % with a fabric affinity value of at least 4 produces a substantive odor on the garment or fabric treated. Such high substantivity cannot be purposefully achieved with the method disclosed by the Iliff reference.

The objective technical problem of the invention therefore was to provide a process for cleaning soiled garments of fabric materials, so that a substantive odor on the garment or fabric is obtained. This technical problem is solved by the use of a fragrance system which comprises fragrance ingredients, wherein **at least 60 % of said fragrance ingredients have a relative fabric affinity value (y) of at least 4.**

The Iliff reference is silent as to which fragrance ingredients should be used in the quantity as claimed in the present application to achieve the desired result.

Furthermore, the reference fails to recognize that the scent of the present invention: **60 % of said fragrance ingredients have a relative fabric affinity value (y) of at least 4.**

These criteria are critical as shown in the experimentation set forth in the specification (see pages 11 - 23 of the specification).

The present inventors have identified a previously **unrecognized parameter (y) that, unlike the teaching of Iliff** (see Figs 1-3 of the present specification), identifies fragrance systems suitable for use in a liquid CO<sub>2</sub> system. Through extensive experimentation and inventiveness, the present inventors have produced a result-effective variable for this purpose where none was previously known. The fabric affinity parameter (y) was previously unrecognized by those of ordinary skill as a result-effective variable (i.e. a variable that achieves a recognized result - the identification of fragrance systems suitable for use in a liquid CO<sub>2</sub> system). Only after a parameter is recognized as a result-effective variable can the determination of its optimum or workable ranges be considered routine experimentation. MPEP 2144.05(II)(B).

Furthermore, Applicants would like to point out to the Examiner that the fabric affinity value (y) is determined according to the COSMO-RS-method. It is due to this COSMO-RS-method that the inventors could rank the vast number of fragrances available according to their relative fabric affinity value.

None of the references cited by the Examiner teach the use of the COSMO-RS-method. The particular relevance of this method is extensively described in the application as originally filed (page 11, line 21 - page 14, line 23) and in the examples.

Therefore, even if any reference would have taught that the fabric affinity of fragrances is important for achieving the desired result, the skilled person would still have been unable to perform the essential step of sourcing the fragrance

ingredients available in order to select the fragrances applicable for achieving the desired result.

The claimed subject matter is therefore novel over the Iliff reference.

Accordingly, withdrawal of the rejection is respectfully requested.

**Claim Rejections (Obviousness)**

The Examiner rejects Claims 13, 14, and 16-21 under 35 U.S.C. 103(a) as being obvious over Murphy (US 6,313,079) in view of Iliff et al. (US 5,412,958).

The position of the Examiner can be found on pages 4-7 of the Office Action.

Applicants respectfully traverse.

**Regarding the Iliff reference**

Applicants' position regarding this reference is set forth above.

**Regarding the Murphy reference**

First, Applicants note that the system of Claim 13 requires **liquid** CO<sub>2</sub> and a fragrance system. The fragrance system comprises fragrance ingredients that are determined to be substantive to garments according to the following mathematical equation:

$$y=a_0+\sum a_n x_n$$

The elements of independent claim 13 are as follows:

- (a) the predicted relative fabric affinity value (y);
- (b) the molecular descriptors derived out of COSMOS RS calculations ( $x_n$ ); and
- (c) coefficients derived from a linear regression analysis ( $a_0$  and  $a_n$ ).

The formula of Claim 13,  $y=a_0+\sum a_n x_n$ , is derived from various molecular descriptors. For example, pages 11-12 of the specification teach that the formula was calculated by using, among other things: linear regression to investigate the correlation between molecular features, the generation of three-dimensional conformers, the force field optimization of structures, cluster analysis, energy optimization, and the calculation of the total energy of the electrostatic ideal surrounded molecule and the resulting charge density  $\sigma$  on the molecular surface.

The present inventors have identified a previously **unrecognized** parameter (y) that, unlike the teaching of Murphy, identifies fragrance systems suitable for use in a **liquid** CO<sub>2</sub> system. Through extensive experimentation and inventiveness, the present inventors have produced a result-effective variable for this purpose where none was previously known. The fabric affinity parameter (y) was previously unrecognized by those of ordinary skill as a result-effective variable (i.e. a variable that achieves a recognized result - the identification of



fragrance systems suitable for use in a liquid CO<sub>2</sub> system). **Only after a parameter is recognized as a result-effective variable can the determination of its optimum or workable ranges be considered routine experimentation. MPEP 2144.05(II)(B).**

First, Applicants note that the Murphy reference does not **expressly** teach:

1. the use of fragrances in the system,
2. the formula:  $y=a_0+\sum a_n x_n$ .
3. the use of **liquid** CO<sub>2</sub>, the reference uses of **gaseous** CO<sub>2</sub>.

Applicants note that the reference teaches, as alternative embodiment, adding deodorizing agents to the system. Applicants note that neither the cited reference nor the 5,784,905 Patent (incorporated by reference) provide a specific list of the deodorizing agents of the present invention. Nevertheless, they recognize the importance of the y parameter that identifies fragrance systems suitable for use in a **liquid** CO<sub>2</sub> system.

**Regarding combining the Iliff and Murphy references**

Applicants would like to point out to the Examiner that neither of the references taken alone or in combination teaches the present invention as claimed.

First, the Murphy reference uses **gaseous** CO<sub>2</sub> and the Murphy reference uses liquid CO<sub>2</sub>. How to references that use different method can be combined?

Second, Applicants have identified a previously **unrecognized** parameter (y) that, unlike the teaching of Murphy or Iliff, identifies fragrance systems suitable for use in a liquid CO<sub>2</sub> system. Through extensive experimentation and inventiveness, the present inventors have produced a result-effective variable for this purpose where none was previously known. The fabric affinity parameter (y) was previously unrecognized by those of ordinary skill as a result-effective variable (i.e. a variable that achieves a recognized result - the identification of fragrance systems suitable for use in a liquid CO<sub>2</sub> system). **Only after a parameter is recognized as a result-effective variable can the determination of its optimum or workable ranges be considered routine experimentation. MPEP 2144.05(II)(B).**

Applicants discovered, after subjecting a large amount of materials to a variety of tests and recording the results on a table for comparative analysis that the ability of fragrances to produce a substantive odor in a fabric increases when the relative fabric affinity value is at least 4.

None of the cited references recognized these parameters.

Applicants believe that the Examiner is using Applicant's disclosure as a blueprint to reconstruct the claimed invention from isolated pieces of the prior art contravenes the statutory

mandate of § 103 which requires judging obviousness at the point in time when the invention was made. See *Grain Processing Corp. v. American Maize-Prods. Co.*, 840 F.2d 902, 907, 5 U.S.P.Q.2d 1788, 1792 (Fed. Cir. 1988).

Finally, the Examiner failed to specifically point out where in the prior art there is an indication that the references may be combined.

It is impermissible within the framework of section 103 to **pick and choose** from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art."

The motivation to modify the prior art must flow from some teaching in the art that suggests the desirability or incentive to make the modification needed to arrive at the claimed invention. Evidence of such motivation may "flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved."

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.

Accordingly, Applicants respectfully request that the rejection of Claims 13-21 under 35 U.S.C. §103(a) over Iliff in view of Murphy be withdrawn.

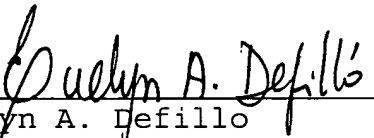
U.S. Application No.: 09/915,716  
AMENDMENT B

ATTORNEY DOCKET: 3968.037

As there are no further rejections, favorable consideration and early issuance of the Notice of Allowance is respectfully requested. Should any points remain that the Examiner considers may be addressed by telephone, the Examiner is requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

PENDORF & CUTLIFF  
5111 Memorial Highway  
Tampa, FL 33634-7356  
(813) 886-6085

  
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Evelyn A. Defillo  
Registration No. 45,630

Date: **January 27, 2005**

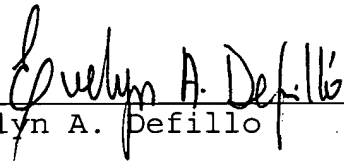
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**CERTIFICATE OF MAILING AND AUTHORIZATION TO CHARGE**

I hereby certify that the foregoing AMENDMENT B for U.S. Application No. 09/915,716 filed July 26, 2001, was deposited in first class U.S. mail, with sufficient postage, addressed: Attn: Mail Stop: Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 on **January 21, 2005**.

The Commissioner is hereby authorized to charge any additional fees, which may be required at any time during the prosecution of this application without specific authorization, except for the issue fee, or credit any overpayment, to Deposit Account No. 16-0877.

  
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Evelyn A. Defillo